weboost®

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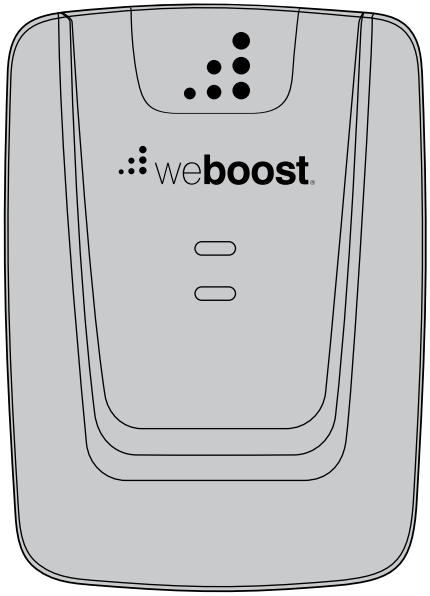

Connect 3G™

Cellular Signal Booster

with Directional Antenna

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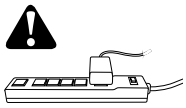

IT IS VERY IMPORTANT TO POWER YOUR SIGNAL BOOSTER USING A SURGE PROTECTED AC POWER STRIP WITH AT LEAST A **1000 JOULE RATING.**

FAILURE TO DO THIS WILL VOID YOUR WARRANTY IN THE EVENT OF A POWER SURGE OR LIGHTNING STRIKE.

THE SIGNAL BOOSTER UNIT IS DESIGNED FOR USE IN AN INDOOR, TEMPERATURE-CONTROLLED ENVIRONMENT (LESS THAN 150 DEGREES FAHRENHEIT). IT IS NOT INTENDED FOR USE IN ATTICS OR SIMILAR LOCATIONS SUBJECT TO TEMPERATURES IN EXCESS OF 150°F.

Installation Instructions for the Following weBoost Signal Booster:

Connect 3G Adjustable Gain In-Building Wireless 800/1900 MHz
SmarTech Ⅲ™ Signal Booster
Model # 472005 FCC ID: PWO460005 IC: 4726A-460005

The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met.

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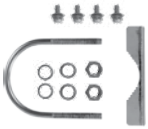
Package Contents

Connect 3G

AC Power Supply
6V / 2.5A
(Not included with some models)
(859912)

Outside Antenna Kit
75 Ohm Wide Band Antenna
30' RG6 coax cable
(314475-0630)

Panel Antenna Kit
Inside Panel Antenna
30' RG6 coax cable
(311155-0630)



Pole Mount Bracket

Wall Mount Bracket

Tools Required for Installation:
(depending on your particular installation, you will need the following tools)

1. Pole mount - 10 mm open-end wrench or adjustable wrench
2. Wall mount or Rafter mount - Drill and 3/16 inch bit, Phillips-head screwdriver

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Before Getting Started

Before you install your Connect 3G and start enjoying improved cellular reception in your facility, please do the following:

1. Read through all the installation steps. This will help you know what to expect from start to finish.
2. Watch the YouTube video demonstrating the Connect 3G installation at https://cellphone signalbooster.us
3. Familiarize yourself with all materials in your product package. This will allow you to know which pieces are referenced in the instructions.
4. Identify the location of your best available cellular signal. See instructions that follow.
5. Determine the best installation locations for your Outside Antenna, Signal Boost, and Inside Antenna. Test the function of your Connect 3G system before finalizing installation.

Find the Strongest Cellular Signal

Before you install your Connect 3G signal booster, you must determine the location of the best available cellular signal. This will affect the location of your Outside Antenna and will help you get the best performance from your Connect 3G. You can find the strongest signal outside your building, typically at the highest point available, using any of the following methods:

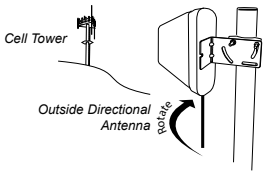
1. **Best method**:

   Connect the Outside Antenna to the Connect 3G signal booster, and the Connect 3G to the Inside Antenna. Have one person outside (on the roof for best results) rotate the Outside Antenna with a second person inside the building near the Inside Antenna watching the signal strength on a phone. This allows you to read the signal strength from nearby cell towers.

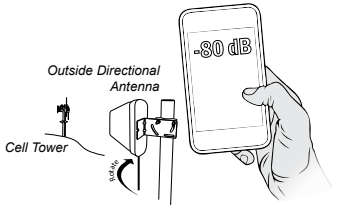
   a. The person inside should have the phone in test mode so the numerical signal strength can be read. This is more accurate than

the bar indicator. Go to https://cell phonesignalbooster.us for help in finding the test mode for your phone.

b. The person on the roof should turn the Outside Antenna 45 degrees at a time. Allow 30 seconds for the phone to register with each turn.



c. The person inside should note the readings on the phone with each turn. Signal readings usually appear as a negative number. The closer the number gets to zero, the stronger the signal (for example, -86 dB would be a moderately good reading while -55 dB would be an excellent reading, and -110 dB would be a weak, or unusable signal).



d. Once you have determined which direction provides the strongest outside signal, you can install the Outside Antenna in that general direction.

2. **Good methods:**

a. Place calls from several locations outside your building. As you move to different locations, note where you get the best reception.

b. If you have a smart phone, you can download apps that help you identify locations of cell phone towers or the strongest signal. Go to the App Store and search for “cell signal” to find available apps for your device.

Download on the App Store GET IT ON Google play

3. **Acceptable method**: Check the bar indicator on your cell phone display and note where the signal appears the strongest. (Note: cell phone bars are only an approximation of signal strength and vary from phone to phone.) Phones can take up to 30 seconds to reset to a new reading. Be patient and repeat your signal check several times.

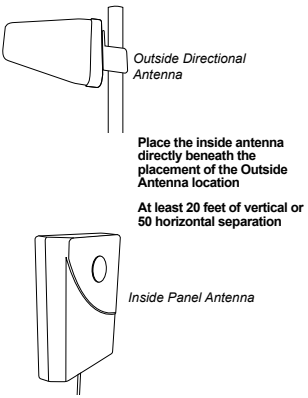
For additional instructions on finding the strongest cellular signal, watch the installation video at: https://cellphone signalbooster.us

Installation Details

As you plan your installation, keep the following guidelines in mind to maximize your signal strength:

1. Maintain a vertical distance of at least 20 feet or a horizontal distance of at least 50 feet between the Outside Antenna to the Inside Antenna.

2. If possible, place the Inside Antenna directly beneath the placement of the Outside Antenna location. This creates a maximized signal zone within the room where the Inside Antenna is located.


Outside Directional Antenna
Place the inside antenna directly beneath the placement of the Outside Antenna location
At least 20 feet of vertical or 50 horizontal separation
Inside Panel Antenna

3. Be sure the Inside Antenna is NOT facing toward the Outside Antenna. This creates potential oscillation or feedback and reduces the effectiveness of the Connect 3G.
4. If you do not know how to mount hardware or run coax cable through walls, ceilings and floors, get help from a weBoost Certified Installer at https://cellphonesignalbooster.us or from a qualified contractor or electrician.

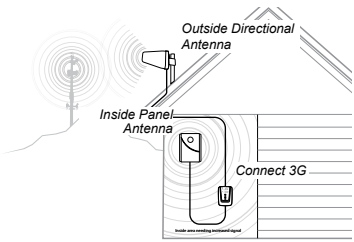
We recommend you install the Lightning Surge Protector **(859992)**. Attach the cable from the Outside Directional Antenna to the surge protector and ground the surge protector. The LSP is sold separately (see page 11 for more info).

Quick Install

For more detailed instructions on installation, read the description later in this guide or watch the video at https://cellphonesignalbooster.us

NOTE: Create a “soft” install first by testing components in your proposed locations before securing them with hardware.

1. Select a location on the roof of the building to install the Outside Antenna. Make sure the antenna is clear of obstructions that could block the signal from the nearest cellular tower.
2. Select a location to install the Signal Booster that is well ventilated and away from excessive heat, moisture, and direct sunlight.
3. Select a location for the Inside Antenna that is in the center of the area where the signal needs to be amplified and a minimum of 20 vertical feet or 50 horizontal feet from the Outside Antenna.



4. Run the coax cable from the Outside Antenna to the Signal Booster and attach it to the connector labeled “Outside Antenna.” Connect another coax cable to the connector labeled “Inside Antenna” and run it to the Inside Antenna. NOTE: Be careful not to bend the center pins on the connectors when securing connections.
5. Once you have ensured all connections are tight, connect the Signal Booster to a surge protected power strip with at least a 1000 Joule rating to protect your equipment from power surges and lightning strikes. (See page 11 for information on lightning protection)
6. If your Connect 3G is working correctly, the lights will be green. If the lights are orange or red, see the “Troubleshooting” section starting on page 7.

Outside Antenna Installation

1. Select a location on the roof or an outside wall where the Outside Antenna can be mounted without obstruction (at least three feet of clearance in all directions) and with at least 20 feet of vertical or 50 feet of horizontal separation from the Internal Antenna.
2. After connecting the coax cable to the antenna, run it underneath the down side of your roof’s flashing if mounted on the roof. Tip: Often you can follow the route used by satellite TV cables. If you attach the Outside Antenna to a wall, run the cable along the outside of the wall to the area where you want the cable to appear on the inside of the building, then drill a hole through the wall where the cable will enter the building. Caution: Before drilling holes for the cable, be sure there are no electrical outlets, wiring, or sewer or water pipes you could puncture or sever.
3. Seal any holes with silicone, cable bushings or other waterproof sealant.

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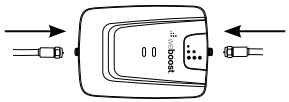
Signal Booster Installation

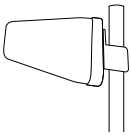
1. Select a location for the Signal Booster that is away from excessive heat, direct sunlight, moisture and well ventilated. The enclosure must NOT be air tight. Also, be sure the location is near a power source.
2. Connect the coax cables to the Signal Booster from the Outside Antenna and Inside Antenna at the designated ports.



3. Do NOT connect the Signal Booster to the power source until all cables are connected.

Inside Antenna Installation

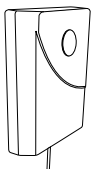
1. Select a location in the center of the area where you want cellular signals improved to mount the Inside Antenna. If you have multiple rooms with poor signal, you may need multiple Inside Antennas. These can attach to the Signal Boost by using a splitter (sold separately). Contact weBoost for more information.
2. Ensure a minimum of 20 feet vertical or 50 horizontal feet separation from the Outside Antenna.



Outside Directional Antenna

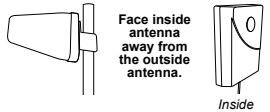
Place the inside antenna directly beneath the placement of the Outside Antenna location

At least 20 feet of vertical or 50 horizontal separation



Inside Panel Antenna

3. Inside Antennas can be mounted above ceiling drywall, on a ceiling inside a room, or on a wall inside a room. Ensure the Inside Antenna is facing AWAY from the Outside Antenna to avoid oscillation (feedback).

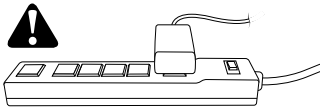


Inside Antenna

4. Use the mounting hardware included in the package to secure the Inside Antenna to the selected location.

Powering Up The Signal Booster

1. Ensure the cables to both the Outside Antenna and Inside Antenna are securely connected before powering up the Signal Booster.
2. Plug the power supply into the Signal Booster input marked “POWER” and then into a surge protector power strip with a minimum 1000 Joule rating.

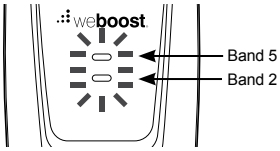


3. The lights on the Signal Booster should remain green . If the lights are red or orange, see the “Troubleshooting” section on page 7.

For illustrations of these installation steps, view the install video at https://cellphone signalbooster.us

Troubleshooting & Understanding Lights

The Signal Boost includes four indicator lights, one for each band (see FAQ for explanation of MHz bands). Each indicator light will either be green, orange or red.



Green indicates that the booster is powered and operating at maximum gain.

Solid Red indicates that the booster has shut off on the associated frequencies to prevent oscillation (feedback).

Solid Orange indicates that the booster has shut off on the associated frequencies due to close proximity of a cell tower.

Green/Orange Blinking indicates that the booster is operating at a reduced gain due to close proximity of a cell tower.

Green/Red Blinking indicates that the booster is operating at a reduced gain to prevent oscillation (feedback).

Note: All red light issues must be resolved before orange light issues.

Fixing Red Light Issues

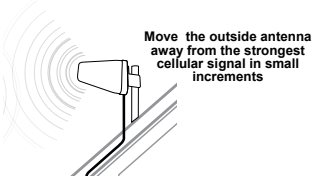
If one or more lights on the Signal Boost are red:

1. Make sure all connections are tight.
2. Increase the distance between the outside antenna and the inside antenna, by moving them horizontally and/or vertically farther apart until the light(s) change to green.
3. Follow the same steps for a green/red blinking light until the light goes solid green.
4. If more separation is not possible and the coverage of the booster is too small with a green/red blinking light indicating reduced gain, contact weBoost Customer Support Team for assistance: 800-501-3153.

Fixing Orange Light Issues

If one or more lights on the Signal Booster are orange:

1. Move the Outside Antenna away from the strongest cellular signal in small increments until the light turns green or green/orange blinking.



2. If the light remains orange, or if the green/orange blinking light indicating reduced gain is not providing enough coverage area, contact the weBoost Customer Support Team for assistance: 800-501-3153.

Lights Off

If one or more of the lights on the Signal Booster are off verify power to your surge protected power strip.

NOTE: The Signal Booster can be reset by disconnecting and reconnecting the power supply.

For additional descriptions on troubleshooting, see the install video at https://cellphonesignalbooster.us

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Additional FAQ:

What hours can I contact customer support?

Customer Support can be reached from 7:00am to 6:00pm MST, by calling (800-501-3153), or by email, at sales@cellphonesignalbooster.us

How does weather affect the performance of my Outside Antenna?

Water vapor (e.g. rain, fog, snow or other precipitation) creates an effective filter to cellular signal. In times of heavy precipitation, you may see less performance.

What's the difference between the 800 MHz and the 1900 MHz bands? How do I know which MHz band my cell phone uses?

The Connect 3G works with all major North American cellular providers on the 800 & 1900 MHz frequencies. Traditionally, 800/1900MHz are associated with voice and 3G data; while 700MHz and 1700/2100MHz are associated with 4G data. For more detail, refer to wirelessadvisor.com (United States) or https://cellphonesignalbooster.us (Canada).

Inside Antenna Expansion Kit

Kit 309900-50N
- 2 - Wall Panel antennas
- 1 - 50 ohm 3-Way Splitter

Kit 309905-50N
- 3 - Wall Panel Antennas
- 3 - 2-Way 50 Ohm Splitters

Kit 309902-75F
- 2 - Wall Panel Antennas
- 1 - 3-Way 75Ohm Splitter

Kit 309903-75F
- 3 - Wall Panel Antennas
- 3 - 2-Way 75Ohm Splitters

Kit 309904-75F
- 1 - Wall Panel Antenna
- 1 - 2-Way 75 Ohm Splitter

Inside Antenna Kits

Kit 301121-40010
- 50 Ohm Dome Antenna
- 10' LMR400

Kit 311135-40060
- 50 Ohm Wall Panel Antenna
- 60' LMR400

Kit 301151-0610
- 75 Ohm Dome Antenna
- 10' RG6 Cable

Kit 311135-5820
- 50 Ohm Wall mount Panel Antenna
- 20' RG58 Cable

Kit 311155-40060
- 50 Ohm Wall Mount Panel Antenna
- 60' LMR400 Cable

Kit 301151-1110
- 75 Ohm Dome Antenna
- 10' RG11 cable

Kit 311155-1150
- 75 Ohm Wall mount Panel Antenna
- 50' RG11 Cable

Kit 301211
- Desktop Antenna w/ 5' RG174

50 Ohm Outside Antenna Kits

Kit 314453-5825
- 50 Ohm Pole Mount Panel Antenna
- 25' RG58 Cable

Kit 314411-5825
- 50 Ohm Wide Band Directional
- 25' RG58 Cable

Kit 301111-5850
- Yagi Directional Antenna
- 50' RG58 Cable

Kit 311129-5840
- 8000 MHz Yagi Directional
- 40' RG58 Cable

Kit 311203-5820
- Omni-Directional antenna
- 20' RG58 Cable

Kit 311124-5830
- 1900 MHz Yagi Antenna
- 30' RG58 Cable

Kit 311203-40020
- Omni-Directional antenna
- 20' LMR400 Cable

Kit 301111-400170
- Yagi Directional w/ N-Female
- 170' LMR400

Kit 311124-400100
- 1900 MHz Yagi Directional
- 100' LMR400 Cable

Kit 311129-400100
- 800 MHz Yagi Antenna
- 100' LMR400 Cable

Kit 314411-40075
- 50 Ohm Wide Band Directional Antenna
- 75' LMR400 Cable

Kit 314453-40075
- 50 Ohm Pole Mount Panel Antenna
- 75' LMR400 Cable

Mini-Mag
- 301126 w/ 12.5 RG174 cable- SMA

75 Ohm Outside Antenna Kits

Kit 301111-0675
- Yagi Directional Antenna
- 75' RG6 Cable
- N-Male to F-Female adapter

Kit 311201-0620
- Omni Antenna w/ F-Female
- 20' RG6 Cable

Kit 311129-0660
- 800 MHz Yagi Directional
- 60' RG6 Cable
- N-Male to F-Female adapter

Kit 311129-0650
- 1900 MHz Yagi Directional
- 50' RG6 Cable
- N-Male to F-Female adapter

Kit 314473-0640
- 75 Ohm Pole Mount Panel Antenna
- 40' RG6 Cable

Kit 311141-0620
- 75 Ohm Grey Brick Antenna
- 20' RG6 Cable

Kit 301111-11140
- Yagi Directional Antenna
- 140' RG11 Cable
- N-Male to F-Female adapter

Kit 311201-1120
- Omni Directional w/ F-Female
- 20' RG11 Cable

Kit 311129-11110
- 800 MHz Yagi Directional
- 110' RG11 Cable
- N-Male to F-Female adapter

Kit 311124-1180
- 1900 MHz Yagi Directional
- 80' RG11 Cable
- N-Male to F-Female adapter

Kit 314473-1175
- 75 Ohm Pole Mount Panel Antenna
- 75' RG11 Cable

Kit 314475-0630
- 75 Ohm Wide Band Directional
- 30' RG6 Cable

Kit 314475-1175
- 75 Ohm Wide Band Directional
- 75' RG11 Cable

Kit 311141-1120
- 75 Ohm Grey Brick Antenna
- 20' RG11 Cable

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Safety Guidelines

WARNING: To uphold compliance with network protection standards, all active cellular devices must maintain at least 6 feet of separation distance from Panel and Dome antennas and 4 feet of separation distance from desktop antennas.

WARNING: Connecting the Signal Booster directly to the cell phone with use of an adapter will damage the cell phone.

WARNING: Use only the power supply provided in this package. Use of a non-weBoost product may damage your equipment.

WARNING: The Signal Booster unit is designed for use in an indoor, temperature-controlled environment (less than 150 degrees Fahrenheit). It is not intended for use in attics or similar locations subject to temperatures in excess of that range.

WARNING: Take care to ensure that neither you nor the pole comes near any power lines during installation.

RF SAFETY WARNING: Any antenna used with this device must be located at least 8 inches from all persons.

This is a CONSUMER device.

BEFORE USE, you **MUST REGISTER THIS DEVICE** with your wireless provider and have your provider's consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. If you are unsure, contact your provider.

You **MUST** operate this device with approved antennas and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20 cm (8 inches) from any person.

You **MUST** cease operating this device immediately if requested by the FCC or a licensed wireless service provider.

WARNING. E911 location information may not be provided or may be inaccurate for calls served by using this device.

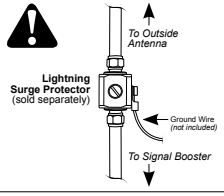
This device complies with Part 15 of FCC rules. Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by weBoost could void the authority to operate this equipment.

Each Signal Booster is individually tested and factory set to ensure FCC compliance. The Signal Booster cannot be adjusted without factory reprogramming or disabling the hardware. The Signal Booster will amplify, but not alter incoming and outgoing signals in order to increase coverage of authorized frequency bands only. If the Signal Booster is not in use for five minutes, it will reduce gain until a signal is detected. If a detected signal is too high in a frequency band, or if the Signal Booster detects an oscillation, the Signal Booster will automatically turn the power off on that band. For a detected oscillation the Signal Booster will automatically resume normal operation after a minimum of 1 minute. After 5 (five) such automatic restarts, any problematic bands are permanently shut off until the Signal Booster has been manually restarted by momentarily removing power from the Signal Booster. Noise power, gain, and linearity are maintained by the Signal Booster's microprocessor.

Signal Booster Specifications

	Connect 3G™	
Model Number	472005	
Connectors	F-Female	
Antenna Impedance	50 Ohms	
Frequency	824-894 MHz / 1850-1990 MHz	
Passband Gain (nominal)	**800 MHz Band 5** 60.3	**1900 MHz Band 2** 60.4
20 dB Bandwidth (MHz)	**800 MHz Band 5**	**1900 MHz Band 2**
Typical Maximum	40.8 41.1	74.7 75.0
Power output for single cell phone (dBm)	**800 MHz Band 5**	**1900 MHz Band 2**
Uplink Downlink	24.9 -2.2	22.5 -2.1
Power output for multiple received channels (Uplink) dBm **No. Tones**	**800 MHz Band 5**	**1900 MHz Band 2**
2	24.8	20.2
3	21.3	16.7
4	18.8	14.2
5	16.9	12.3
6	15.3	10.7
Power output for multiple received channels (Downlink) dBm **No. Tones**	**800 MHz Band 5**	**1900 MHz Band 2**
2	1.3	3.5
3	-2.2	-0.1
4	-4.7	-2.6
5	-6.6	-4.5
6	-8.2	-6.1
Noise Figure (typical downlink/uplink)	3 dB nominal / 6 dB nominal	
Isolation	> 90 dB	
Power Requirements	AC / DC 6V, 2.5A, w/2.5x5.5mm Jack	

The Manufacturer's rated output power of this equipment is for single carrier operation. For situations when multiple carrier signals are present, the rating would have to be reduced by 3.5 dB, especially where the output signal is re-radiated and can cause interference to adjacent band users. This power reduction is to be by means of input power or gain reduction and not by an attenuator at the output of the device.



RECOMMENDED: INSTALLING THE LIGHTNING SURGE PROTECTOR
(SOLD SEPARATELY)

INSTALL THE LIGHTNING SURGE PROTECTOR (LSP) CLOSE TO THE SIGNAL BOOSTER. ATTACH THE CABLE FROM THE OUTSIDE ANTENNA TO THE SURGE PROTECTOR. **ENSURE THE LSP IS PROPERLY GROUNDED**. #859992-75 OHM MAY BE PURCHASED AT *HTTPS://CELLPHONESIGNALBOOSTER.US* OR BY CALLING 800-204-4104.

2-Year Warranty

weBoost Signal Boosters are warranted for two (2) years against defects in workmanship and/or materials. Warranty cases may be resolved by returning the product directly to the reseller with a dated proof of purchase.

Signal Boosters may also be returned directly to the manufacturer at the consumer's expense, with a dated proof of purchase and a Returned Material Authorization (RMA) number supplied by weBoost. weBoost shall, at its option, either repair or replace the product. weBoost will pay for delivery of the repaired or replaced product back to the original consumer if located within the continental U.S.

This warranty does not apply to any Signal Boosters determined by weBoost to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties.

Failure to use a surge protected AC Power Strip with at least a 1000 Joule rating will void your warranty.

RMA numbers may be obtained by contacting Customer Support at 800-501-3153.

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